

11. (Amended) A method as claimed in Claim 15, wherein the nitrogen-based semiconductor layer includes at least two components selected from a group consisting of $\text{In}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 1$), $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($0 \leq x \leq 1$), and $\text{Al}_x\text{In}_y\text{Ga}_{1-x-y}\text{N}$ ($0 \leq x + y \leq 1$).

12. (Amended) A method as claimed in Claim 20, wherein the sapphire is etched out by the use of the etchant kept at a temperature not lower than 300°C.

13. (Amended) A method as claimed in Claim 17, wherein the nitrogen-based semiconductor device structure forms a semiconductor laser, a light emitting diode, and/or a field effect transistor.

14. (Amended) A method as claimed in Claim 15, further comprising the step of: polishing the nitrogen-based semiconductor layer on its surface faced to the provisional substrate so as to flatten the surface.

Please add Claims 15-20 as follows:

-- 15. (New) A method of manufacturing a nitrogen-based semiconductor layer grown on a hetero-substrate, comprising the steps of:

forming, on a surface of the nitrogen-based semiconductor layer, a protection layer composed of at least one material selected from a group consisting of Au, Pt, Ti-Au, Pd-Au, Ni-Au, Ti-Pt-Au, AuZn, and AuGe, so that the protection layer covers at least the surface of the nitrogen-based semiconductor layer; and

etching out the hetero-substrate by the use of an etchant for the hetero-substrate to leave the nitrogen-based semiconductor layer.

16. (New) A method as claimed in Claim 15, wherein the nitrogen-based semiconductor layer is formed by a nitrogen-based semiconductor thick film.

17. (New) A method as claimed in Claim 15, wherein the nitrogen-based semiconductor layer implements a nitrogen-based semiconductor structure.

18. (New) A method as claimed in Claim 16, further comprising the step of:
processing the nitrogen-based semiconductor substrate into a nitrogen based semiconductor element after the hetero-substrate is etched out.

19. (New) A method as claimed in Claim 17, wherein the protection layer is used as an electrode of the nitrogen-based semiconductor element.

20. (New) A method as claimed in Claim 15, wherein the hetero-substrate is a sapphire substrate while the etchant is formed by a mixed solution of phosphoric acid and sulfuric acid or another mixed solution including the phosphoric acid and the sulfuric acid.--

REMARKS

The Office Action has rejected Claims 1-6, 10-11 and 13-14 as allegedly being anticipated by the teachings in U.S. Patent NO. 5,834,325 to Motoki, et al. ("Motoki, et al."). In addition, it has objected to Claims 7-9 and 12, but has indicated that the subject matter therein would be allowable if rewritten in independent form.

Applicants have amended the specification and the claims. The specification has been amended to correct obvious typographical errors therein, specifically on Pages 12 and 14, thereof.

Moreover, applicants have cancelled Claims 1-9 without prejudice. However, applicants have not abandoned the subject matter therein and reserve the right to file a continuation application directed thereto.